

Appl. No. 09/222,340
Amtd. Dated 11/11/2004
Reply to Office action of 08/13/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) An apparatus adapted to facilitate communications between a client device and a remote device, comprising:
 - a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy related to differentiated service levels, and associated with the at least one filter and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associated with the received data packet in response to satisfying the filter criteria associated with the at least one filter; and
 - a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admissions profile of the admission policy.
2. (previously presented) The apparatus of claim 1, wherein the at least one filter when triggered, initiate an admission control decision preventing premature allocation of service level resources which are not yet required or authorized.
3. (previously presented) The apparatus of claim 2, wherein each of the filters is triggered by information contained within the received data packet.
4. (previously presented) The apparatus of claim 3, wherein each of the filters is triggered by one or both of packet source information and packet destination information.
5. (original) The apparatus of claim 1, wherein the admissions profile is stored in a communicatively coupled remote device.

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6. (original) The apparatus of claim 5, wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server.
7. (original) The apparatus of claim 1, wherein the admissions profile is available locally within the apparatus.
8. (previously presented) The apparatus of claim 1, wherein the controller establishes an ingress profile in response to detecting an associated trigger event, wherein the ingress profile modifies the received data packet adhering to the filter criteria to denote a particular service level, in accordance with the admissions profile.
9. (original) The apparatus of claim 8, wherein the controller removes ingress profiles when data packets adhering to the filter criteria are no longer received, liberating apparatus resources.
10. (original) The apparatus of claim 8, wherein the controller removes ingress profiles after a predetermined period of time, liberating apparatus resources.
11. (previously presented) The apparatus of claim 1, wherein the controller removes at least one of the filters in accordance with a network administration policy.
12. (previously presented) The apparatus of claim 11, wherein the controller removes at least one of the filters based, at least in part, on time-of-day.
13. (previously presented) A method for controlling provision of differentiated service levels in a data network, the method comprising:
 - (a) installing a filter on a network edge device to provide a trigger notification upon detecting data packets adhering to filter criteria;
 - (b) determining whether a received data packet satisfies the filter criteria, the filter criteria corresponding to an admission policy related to the differentiated service levels; and

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(c) issuing a command by a bandwidth broker to a controller of the network edge device to dynamically install or remove a filter in response to determining whether the received data packet satisfies the filter criteria.

14. (previously presented) The method of claim 13, further comprising (d) marking the received data packets adhering to the filter criteria according to a subscribed service level.

15. (canceled)

16. (previously presented) The method of claim 14, wherein the marking of the received data packet includes setting a logic value of a bit in a Type of Service (ToS) field of a header of the data packet.

17. (previously presented) The method of claim 14 further comprising:

(e) identifying and marking the received data packets with routing information in accordance with the subscribed service level.

18. (previously presented) The method of claim 17 further comprising:

(f) placing the data packets in a proper format for transmission.

19. (previously presented) The apparatus of claim 1, wherein the classifier marks a Type of Service (ToS) field of the received data packet to denote a level of service for transmission of the data packet.

20. (previously presented) The apparatus of claim 1, wherein the controller further dynamically controls access to at least one classifier profile in accordance with the admission profile.

21. (previously presented) An apparatus adapted to facilitate communications between a client device and a remote device, comprising:

filter means for controlling access to differentiated service levels;

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means for classifying and marking one of the service levels associated with the received data packet in response to satisfying filter criteria corresponding to an admission policy related to differentiated service levels, and associated with the filter means, the means for classifying being communicatively coupled to the filter means; and

control means for dynamically creating and removing a portion of the filter means based at least in part on an admission profile of the admission policy.

22. (previously presented) The apparatus of claim 21, wherein the admissions profile is stored in a communicatively coupled remote device.

23. (previously presented) The apparatus of claim 22, wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server.

24. (previously presented) The apparatus of claim 21, wherein the filter means comprises a plurality of filters.

25. (previously presented) The apparatus of claim 24, wherein the control means removes at least one of the filters in accordance with a network administration policy.

26. (previously presented) The apparatus of claim 25, wherein the control means removes at least one of the filters based, at least in part, on time-of-day.